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Thank you very much, Gary, for giving me a chance to share with this audience the results of some of our recent experiments. For the past half year, my colleague, Dr. Harold Puthoff, and I have been conducting experiments to determine whether so-called psychic or psychoenergetic functioning could be observed under rigidly controlled laboratory conditions. Psychic phenomena were not invented in the laboratory but are alleged to occur spontaneously in the field. The purpose of our investigation is to find out if these phenomena exist, and if they do exist, can they be successfully investigated.

We have now conducted experiments with two individuals who we were told had apparently demonstrated extraordinary human functioning in work with other investigators. We do not claim that either of these men have psychic powers. We do, however, stand by our experiments which show these men interacting with laboratory apparatus in a non-regular fashion. We conclude therefore that these men, and the interactions that they apparently produce, are worthy of further investigation. And we intend to carry out that investigation in as careful and well controlled a manner as possible.

Dr. Puthoff and I have both been involved in laser research for a number of years, and throughout that time we have been avocationally interested in psychical research. Based on our experience and familiarity with the field of psychical research, we are aware that a subject has significant motivation to cheat or hoax the experimenter if he is given a chance. It was therefore our guiding principle to make our experiments as cheat-proof as possible. If in retrospect we decided that the results could have been duplicated by stage magic, the experiment was considered void, even in the

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absence of any evidence of cheating. In addition, given the nature of the phenomena, we designed experiments that would be independent of the belief system of the experimenters. In general, we designed experiments which could be performed double-blind or judged by some objective method such as data printed on a chart recorder.

The first of the experiments we will describe was carried out with Mr. Ingo Swann, a New York artist. He has taken part in apparently successful experiments with Professor Gertrude Schmeidler at City College, and with Dr. Karlis Osis at the laboratories of the ASPR. Although Mr. Swann makes no personal claims of psychic ability, his performance in these two laboratories made him appear as a suitable candidate for participation in our beginning investigation of psychic phenomena. Since Dr. Puthoff was more involved in this experiment than I was, I will ask him to describe the work with Mr. Swann, after which we will show a film which presents in some detail the experiments we performed with a second subject.

Let me introduce Dr. Puthoff.

As a result of the interesting work here in New York by others with Mr. Swann, it was arranged that he would visit our laboratory. We decided at the outset to define a test especially suited to minimize the possibility of trickery. So, a well-shielded magnetometer was chosen as the device with which Mr. Swann would be asked to interact. We want to describe that observation. In passing, let me note that it is important to distinguish between a single observation as described here and a series of experiments carried out over a long period of time. Nonetheless, we do consider this observation significant from the standpoint of indicating the existence of a phenomenon deserving further study.

(SLIDE 1) Arrangements were made to use a superconductor-shielded magnetometer.

(Description) The magnetometer is located in a well, mounted on shocks inside an aluminum Dewar cooled to liquid helium temperature. The magnetometer is shielded on the outside by  $\mu$ -metal shielding.

(SLIDE 2) Here is the aluminum Dewar wall, and here, most important, a superconducting niobium shield. The magnetometer is of the SQUID variety, that is, a superconducting quantum interference device. The probe is located here.

(SLIDE 3) This device normally has an output voltage whose frequency is a measure of the rate of change of magnetic field present.

Before the experiment, a decaying magnetic field, trapped during cooling of the apparatus, was present inside the magnetometer, and its decay with time provided a background calibration signal that registered

as a periodic output on an x-y recorder. The frequency of the output corresponds to the decay rate of the calibration field ( $\approx 10^{-6}$  Gauss). The period is about 30 seconds. The system is noise free and had been running for something of the order of an hour before our experiment with no noise. Mr. Swann was shown the setup and told that if he were to affect the magnetic field in the magnetometer it would show up as a change in the output recording.

He then placed his attention on the interior of the magnetometer (this is his description) at which time the frequency of the output doubled for 30 seconds. Mr. Swann was then asked if he could stop the field change being indicated by the periodic output on the recorder. He then apparently proceeded to do just that, for a period of roughly 45 seconds. He then withdrew his attention at which time the output returned to normal.

Upon inquiry as to what he had done, he claimed that he had direct visual perception of the probe inside and that the act of mentally observing different parts seemed to him to correlate with different effects. As he described what he was doing, making an accurate drawing, the recording again traces out a double frequency cycle as had appeared before. An atypical dip in the recording took place then as he said he was looking at a new part of the apparatus, a niobium ball sitting in a cup off to the side of the probe which was used in another experiment. We then asked him to refrain from thinking about the apparatus, and the normal pattern was then traced out for several minutes while he was engaged in conversation on other subjects. At one point he started to discuss the magnetometer again, at which point the tracing went into a high frequency pattern. At our request

he stopped; the observation was then terminated as Mr. Swann said he was tired from his effort.

(SLIDE 4) We then left the lab, and the physicist whose equipment we were using continued to run the apparatus for over an hour with no trace of noise or non-uniform activity. The top two traces show a continuing record following termination of the experiment. The third trace was taken some time later, the increase in the period indicating the reduced rate of magnetic field decay. At various times during this and the following day when similar data with Mr. Swann were taken, the experiment was observed by numerous professional people.

An interesting side-light of the experiment was that Mr. Swann was able to describe accurately what the interior of the device looked like, apparently with some form of direct perception. This tends to support the results referred to earlier that were obtained by others with Mr. Swann at the ASPR. Barring outright fraud and collusion, for which we have looked but found no evidence, it appears unlikely that he would have had a chance to look at a diagram beforehand, as he did not know that this particular piece of apparatus was to be used until we arrived in the laboratory.

At this point we wish to emphasize again that we consider this a single observational data point, not a long term experiment. There are variables we wish to check for in future experimentation such as whether it was the recording device itself that was affected rather than the field or magnetometer structure. No evidence of manipulation by trickery was uncovered, however; therefore we consider that the problem at hand is to determine the exact form of the interaction. Further work with this subject is being carried out.

Upon completion of the work and evaluation of the data, we expect the work will be reported in appropriate scientific publications. And now, Mr. Targ will continue our presentation.

Thank you, Hal,

Before answering questions on this work, I think we should go on to describe experiments done with our second subject. He is Uri Geller, a and stage magician 26-year-old Israeli Army veteran. He, unlike Swann, makes no secret of his purported psychic abilities. We did not seek out Geller, but rather he was brought to us to investigate the claims made for him. In our work with him there were many observations which did not meet our strict criterion for well-controlled experiments. Although some of these are identified and included in the film, our conclusions concerning Geller's ability are drawn from experiments which we do judge to be well controlled. Neither the work with Swann nor Geller has been submitted for publication, since we consider it to be only preliminary at this point. One of the reasons that we particularly wanted to present our data here is to obtain your opinions and criticism concerning this work.

With regard to the material to be shown in the film, in addition to Dr. Puthoff and myself and other SRI scientists, all the data shown here were observed by the cinematographer, and by an assistant in a separate room who operated a video tape recorder to have all material available for immediate playback. With that preamble, we will let the film speak for itself.

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In summary we want to leave you with a clear impression about our own attitude toward these data.

We entered this research area as physicists to determine if so-called psychic phenomena could be investigated under rigorously controlled conditions. We conclude that such investigations can yield observable results worthy of further investigation, and we intend to carry out those investigations. However, we consider it obviously too early to draw any sweeping conclusions regarding the nature of these phenomena, or even the need to call them psychical.